

CLAIMS

1. A method for preventing or treating a T cell mediated inflammatory or autoimmune disease comprising administering to an individual in need thereof a therapeutically effective amount of at least one FGFR 3 inhibitor and a pharmaceutically acceptable carrier.
5
2. The method according to claim 1 wherein said at least one FGFR3 inhibitor is selected from a group consisting of a molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3, a FGFR3 specific small organic molecule tyrosine kinase inhibitor, a FGFR3 specific soluble receptor, a FGFR3 specific peptide or peptidomimetic, a FGFR3 specific RNA inhibitor, a FGFR3 specific antagonist ligand and a DNA vaccine encoding FGFR3 or a fragment thereof, an FGFR3 specific inhibitor of heparan sulfate binding.
10
3. The method according to claim 2 wherein said at least one FGFR3 inhibitor is a molecule comprising the antigen-binding portion of an antibody which has a specific affinity for the extracellular domain of FGFR3.
15
4. The method according to claim 3 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 is a monoclonal antibody or a proteolytic fragment thereof.
5. The method according to claim 4 wherein said monoclonal antibody or proteolytic fragment thereof is an anti-FGFR3 Fab.
20
6. The method according to claim 34 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 is a single chain Fv set forth in SEQ ID NO:37.
7. The method according to claim 3 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a V_H-CDR3 region selected from a group consisting of polypeptides set forth in anyone of SEQ ID NOS:1-9 and a V_L-CDR3 region selected from a group consisting of polypeptides set forth in anyone of SEQ ID NOS:10-18.
25
8. The method according to claim 7 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a
30

V_H -CDR3 region set forth in SEQ ID NO:1 and a V_L -CDR3 region set forth in SEQ ID NO:10.

9. The method according to claim 3 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a

5 V_H region selected from a group of polypeptides set forth in anyone of SEQ ID NOS:19-27 and a V_L region selected from the group of polypeptides set forth in anyone of SEQ ID NOS:28-36.

10. The method according to claim 9 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a

10 V_H region set forth in SEQ ID NO:19 and a V_L region set forth in SEQ ID NO:28.

11. The method according to claim 2 wherein said at least one FGFR3 inhibitor is a FGFR3 specific small organic molecule tyrosine kinase inhibitor.

12. The method according to claim 1 wherein the T cell mediated inflammatory

autoimmune disease is selected from rheumatoid arthritis, collagen II arthritis, 15 multiple sclerosis, systemic lupus erythematosus, psoriasis, juvenile onset diabetes, Sjogren's disease, thyroid disease, sarcoidosis, autoimmune uveitis, inflammatory bowel disease (Crohn's and ulcerative colitis), celiac disease and myasthenia gravis.

13. The method according to claim 12 wherein the T cell mediated inflammatory

autoimmune disease is rheumatoid arthritis.

20 14. Use of at least one FGFR 3 inhibitor for the preparation of a medicament for preventing and treating a T cell mediated inflammatory autoimmune disease.

15. Use according to claim 14 wherein said at least one FGFR3 inhibitor is selected from a group consisting of a molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3, a FGFR3 specific small organic

25 molecule tyrosine kinase inhibitor, a FGFR3 specific soluble receptor, a FGFR3 specific peptide or peptidomimetic, a FGFR3 specific RNA inhibitor, a FGFR3 specific antagonist ligand and a DNA vaccine encoding FGFR3 or a fragment thereof.

16. Use according to claim 15 wherein said at least one FGFR3 inhibitor is a molecule comprising the antigen-binding portion of an antibody which has a specific affinity for the extracellular domain of FGFR3.
17. Use according to claim 15 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 is a monoclonal antibody or proteolytic fragment thereof.
5
18. Use according to claim 17 wherein said monoclonal antibody or proteolytic fragment thereof is an anti-FGFR3 Fab.
19. Use according to claim 15 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 is a single chain Fv set forth in SEQ ID NO:37.
10
20. Use according to claim 15 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a V_H-CDR3 region selected from a group consisting of polypeptides set forth in anyone of SEQ ID NOS:1-9 and a V_L-CDR3 regions selected from a group consisting of polypeptides set forth in anyone of SEQ ID NOS:10-18.
15
21. Use according to claim 20 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a V_H-CDR3 region set forth in SEQ ID NO:1 and a V_L-CDR3 region set forth in SEQ ID NO:10.
20
22. Use according to claim 15 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a V_H region selected from a group of polypeptides set forth in anyone of SEQ ID NOS:19-27 and a V_L region selected from the group of polypeptides set forth in anyone of SEQ ID NOS:28-36.
25
23. Use according to claim 22 wherein said molecule comprising the antigen-binding portion of an antibody which has a specific affinity for FGFR3 comprising a V_H region set forth in SEQ ID NO:19 and a V_L region set forth in SEQ ID NO:28.
24. Use according to claim 15 wherein said at least one FGFR3 inhibitor is a FGFR3 specific small organic molecule tyrosine kinase inhibitor.
30

25. Use according to claim 14 wherein the T cell mediated inflammatory autoimmune disease is selected from rheumatoid arthritis, collagen II arthritis, multiple sclerosis, systemic lupus erythematosus, psoriasis, juvenile onset diabetes, Sjogren's disease, thyroid disease, sarcoidosis, autoimmune uveitis, inflammatory bowel disease

5 (Crohn's and ulcerative colitis), celiac disease and myasthenia gravis.

26. Use according to claim 25 wherein the T cell mediated inflammatory autoimmune disease is rheumatoid arthritis.